Gravatt, Dan

From: Schumacher, John <jschu@usgs.gov>
Sent: Wednesday, January 15, 2014 5:47 AM
To: Gravatt, Dan
Subject: Re: West Lake Landfill: Amended IA budget numbers required ASAP!
Attachments: USGS 2nd Decision Memo_1.1.doc

Dan,

Sorry I did not get this out before I left yesterday. Please find enclosed the decision memorandum with the budget line items completed (green highlight) per your request. We appreciate the opportunity to assist the USEPA on this project. The question of background water quality will allow us to further our scientific understanding of the Mississippian aquifer in the area beyond the regional assessments done done in the past, and assist your agency in fulfilling its mission as well.

Best Regards,

John

On Tue, Jan 14, 2014 at 11:25 AM, Gravatt, Dan <Gravatt.Dan@epa.gov> wrote:

> John, as we discussed on the phone this morning, please fill in USGS's budget line items in the table on page 4 of the attached decision memorandum, as well as the yellow-highlighted indirect cost on that page and USGS's current indirect rate highlighted on page 5 (if it has changed). Note that the total new funding being added to the IA is $130,000. I've made minor wording tweaks to the language on the scope of work to more specifically reflect the work we've been having you do and expect to ask you to do in the future under this IA.
>
> Please get this back to me and Marie as soon as possible so we can keep your work going uninterrupted.
>
> Sincerely,
>
> Daniel R. Gravatt, PG
>
> US EPA Region 7 SUPR/MOKS
>
> 11201 Renner Boulevard, Lenexa, KS 66219
>
> Phone (913) 551-7324
>
> Principles and integrity are expensive, but they are among the very few things worth having.

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--
John G. Schumacher
Chief, Hydrologic Investigations
U.S. Geological Survey
Missouri Water Science Center
1400 Independence Road
Rolla, MO 65401
573.308.3678 573.308.3645(fax)
email: jschu@usgs.gov

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: ~~January XX, 2014~~ March 11, 2014

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SUBJECT: AMENDED DECISION MEMORANDUM: Interagency Agreement (IA) with The United States Geological Survey (USGS) DW14-

FROM: Cecilia Tapia, Director
Superfund Division

TO: Interagency Agreement Shared Service Center

PROJECT TITLE

Hydrogeology Support for the West Lake Landfill Superfund Site

JUSTIFICATION

The purpose of this Amended Decision Memorandum is to fund additional work under the scope of this Interagency Agreement. The type and characteristics of the work needed falls under the purview of the United States Geological Survey (USGS). The U.S. Environmental Protection Agency (EPA) considered using existing contracts, such as the Region 7 Environmental Collection and Analysis Program, the Architect and Engineering Services (AES) Contract, the Superfund Technical Assessment and Response Team (START), and the Emergency and Rapid Response Services (ERRS). However, due to the nature of the contracts, several of these alternatives were not suitable for the work needed. The AES contract, which was most suited for the project's needs, was weighed against using an IA with the USGS.

Due to the specialized expertise needed to perform the specified tasks, an IA with the USGS would be the most effective and cost efficient vehicle to conduct these specified activities. Analysis of site hydrogeology and regional background concentrations of radionuclides requires knowledge and expertise that the AES contractor does not have at their disposal. The costs for the AES contractor to subcontract these activities would cost more than having the activities performed under an IA with USGS.

PURPOSE

Under this IA, the USGS will provide technical and hydrogeologic support to EPA at the West Lake Landfill Site. The USGS will be tasked under this IA to perform technical assistance and analytical services for EPA on-site groundwater split samples and/or off-site privately owned well samples for ~~radium, uranium and thorium for~~ supplemental feasibility studies. These tasks will include document review, data analysis and interpretation, providing expert recommendations, participation in technical meetings, and participation in community meetings.

BACKGROUND

The West Lake Landfill Site is on a parcel of approximately 200 acres located in the northwestern portion of the St. Louis metropolitan area. It is situated approximately one mile north of the intersection of Interstate 70 and Interstate 270 within the limits of the city of Bridgeton in northwestern St. Louis County. The Missouri River lies about 1.5 miles to the north and west of the Site.

The Site consists of the Bridgeton Sanitary Landfill (Former Active Sanitary Landfill) and several inactive areas with sanitary and demolition fill that have been closed. Land use at the site and the surrounding areas in Earth City is industrial.

Other facilities which are not subject to this response action are located on the 200-acre parcel including concrete and asphalt batch plants, a solid waste transfer station, and an automobile repair shop.

The Site was used agriculturally until a limestone quarrying and crushing operation began in 1939. The quarrying operation continued until 1988 and resulted in two quarry pits. Beginning in the early 1950s, portions of the quarried areas and adjacent areas were used for landfilling municipal solid waste (MSW), industrial solid wastes, and construction/demolition debris. These operations were not subject to state permitting because they occurred prior to the formation of the Missouri Department of Natural Resources (MDNR) in 1974. Two landfill areas were radiologically contaminated in 1973 when they received soil mixed with leached barium sulfate residues.

The barium sulfate residues, containing traces of uranium, thorium, and their long-lived daughter products, were some of the uranium ore processing residues initially stored by the Atomic Energy Commission (AEC) on a 21.7-acre tract of land in a then undeveloped area of north St. Louis County, now known as the St. Louis Airport Site (SLAPS), which is part of the St. Louis Formerly Utilized Sites Remedial Action Program managed by the U.S. Army Corps of Engineers.

Reportedly, 8,700 tons of leached barium sulfate residues were mixed with approximately 39,000 tons of soil and then transported to the Site. According to the landfill operator, the soil was used as cover for municipal refuse in routine landfill operations.

The geology of the landfill area consists of Paleozoic-age sedimentary rocks overlying Pre-Cambrian-age igneous and metamorphic rocks. The Paleozoic bedrock is overlain by unconsolidated alluvial and loess deposits of recent (Holocene) age. Alluvial deposits of varying thickness are present beneath Areas 1 and 2. The landfill debris varies in thickness from 5 to 56 feet in Areas 1 and 2, with an average thickness of approximately 30 feet in Area 2. The underlying alluvium increases in thickness from east to west beneath Area 1. The alluvial thickness beneath the southeastern portion of Area 1 is less than 5 feet (bottom elevation of 420 ft/amsl) while the thickness along the northwestern edge of Area 1 is approximately 80 feet (bottom elevation of 370 ft/amsl). The thickness of the alluvial deposits beneath Area 2 is fairly uniform at approximately 100 feet (bottom elevations of 335 ft/amsl).

During the RI investigations, groundwater was generally encountered in the underlying alluvium near or immediately below the base of the landfill debris. Isolated bodies of perched water were

encountered in 2 of the 24 soil borings drilled in Areas 1 and 6 of the 40 borings drilled in Area 2 as part of the RI field investigations. The perched water generally occurs in small isolated units at depths varying from 5 to 30 feet below ground surface. Monthly groundwater levels measured in various landfill wells indicate that only a very small amount of relief (less than a foot) exists in the natural alluvial water table surface. The regional direction of groundwater flow is northerly within the Missouri River alluvial valley, parallel or sub-parallel to the river alignment. However, the leachate collection system for the Former Active Sanitary Landfill creates a localized cone of depression that extends across the eastern half of the Site and includes the water table underlying Area 1.

Vertical hydraulic gradients were calculated using piezometer clusters. The vertical hydraulic gradients for the shallow alluvium to intermediate or deep alluvium and for deep alluvium to shallow bedrock are very small and vary from slightly downward to slightly upward.

REQUESTED ACTION

A specific set of work tasks will be performed by USGS to (a) analyze, provide feedback on, interpret and evaluate hydrologic and geochemical data in support of determining uranium, thorium and radium background contaminant levels in groundwater; (b) provide expert recommendations on groundwater hydrology and contaminant issues that may arise during the ongoing Supplemental SFS evaluations and preparation of the subsequent ROD amendment; and (c) provide field support and/or ~~radiological~~ analytical support for on-site groundwater split samples and/or off-site privately owned well samples ~~for uranium, thorium and radium isotopes that EPA may collect~~ during future groundwater sampling events, through USGS' contract laboratories, if it can be demonstrated that the analytical capabilities of the contract laboratory (ies) are equivalent to those being used by the responsible parties for their radiological analyses.

STATUTORY AUTHORITY

The statutory authority for entering into this IA is Section 105(a)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601 et seq., Public Law 96-510, December 11, 1980), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99-499, October 17, 1986), and Executive Order 12580.

FUNDS AVAILABILITY

This IA will provide an additional $1350,000 to the USGS to continue~~for~~ technical and hydrogeological support at the
West Lake Landfill Superfund Site.

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PROJECT PERIOD

The project period for this IA action (duration of IA work activity) is March 22, 2013 to December 30, 2015. The total IA project period is expected to be March 22, 2013 to December 30, 2015.

PRE-AWARD COSTS

N/A

BUDGET - TRAVEL

I have verified with John Schumacher from the USGS that the proposed travel is necessary for the project and the IA is not for the purpose of augmenting USGS travel funds.

BUDGET - INDIRECT COSTS

~~$30,241~~
~~$19,959~~

BUDGET

Budget Categories	EPA Previous Funding	Current Funding Action	Itemization of Total Project Cost to Date
(a) Personnel	$19,400	$62,583	$81,983
(b) Fringe Benefits			
(c) Travel	$1,523	$1,500	$3,023
(d) Equipment			
(e) Supplies	$4,934	$2,800	$7,734
(f) Procurement/Assistance			
(g) Construction			
(h) Other	$4,184	$13,452	$17,636
(i) Total Direct Charges	$30,041	$79,955	$109,996
(j) Indirect Costs	$19,959	$50,245	$70,204
(k) Total	$50,000	$130,000	$180,000

~~Budget Categories~~	~~EPA Previous Funding~~Itemization of ~~This Action~~	~~Current Funding Action~~	~~Itemization of Total Project Cost to Date~~
~~(a) Personnel~~	~~$19,400~~		
~~(b) Fringe Benefits~~			
~~(c) Travel~~	~~$1,523~~		
~~(d) Equipment~~			
~~(e) Supplies~~	~~$4,934~~		
~~(f) Procurement/Assistance~~			
~~(g) Construction~~			
~~(h) Other~~	~~$4,184~~		
~~(i) Total Direct Charges~~	~~$30,041~~		

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~~(j) Indirect Costs~~	~~$19,959~~		
~~(k) Total~~	~~$50,000~~	~~$130,000~~	~~$180,000~~

PAYMENTS

For this disbursement agreement, repayments will be made quarterly.

EQUIPMENT/PROPERTY

The USGS and/or its contractors are NOT authorized to purchase personal property/equipment under this IA. Title to personal property/equipment acquired totally or in part with Superfund Trust Fund having an aggregate fair market value of $1,000 or more at the end of the project period, including contractor-acquired equipment, will remain vested with the EPA except for personal property/equipment comprising part of the remedial or response action and necessary for the continued functioning of the response action. In that case, EPA will relinquish its interest in the personal property/equipment at the time of installation and no reimbursement to the Trust Fund will be required.

SPECIAL CONDITIONS

Billing/Payment

When requesting payments, a breakdown of the cost associated with the billing request must be provided to the EPA Project Officer. This information should be adequate to allow the EPA Project Officer to determine that costs billed to EPA are necessary and reasonable. If the information is not provided, the EPA Project Officer will notify the Financial Management Division to suspend or charge back the payment.

Progress Reporting

The USGS shall provide a summary of activities that occurred within 30 days of the end of each federal fiscal quarter.

Indirect Cost Rate

The indirect cost rate for the proposed work with USGS is [redacted]

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Superfund Cost Recover Audit

The site will be tracked site-specifically with an assigned site spill identifier number. Please refer to the attached Statement of Work (SOW), page 3 Documentation and Accounting.

Compliance with Quality Assurance Guidelines

USGS has~~will~~ submitted a site-specific Quality Assurance Pproject Plan for the EPA's review and approval. The QAPP ~~, if needed.~~ EPA approved on September 26, 2013 remains in effect.

PROJECT OFFICER CERTIFICATION STATUS

Marie Rabenau is a certified EPA IA Project Officer.

HUMAN SUBJECTS

N/A

PROJECT / BUDGET PERIOD AND PERIOD OF FUNDS AVAILABILITY

The budget and project periods will be from March 22, 2013 to December 30, 2015.

FOREIGN ACTIVITIES APPROVAL

N/A

RECOMMENDATION

After reviewing all the information and alternatives, the project team determined that an IA with the USGS is the most efficient and economical alternative and will provide the highest quality technical support on the West Lake Landfill Superfund Site. Therefore, it is in the best interest of the government for the USGS to provide the geologic and hydrologic expertise needed to complete the specified tasks for this Superfund site.

Project Manager Signature	**Typed Name and Title** Dan Gravatt Remedial Project Manager Superfund Division	**Date**
Project Officer Signature	**Typed Name and Title** Marie Rabenau Project Officer Superfund Division	**Date**
Recommending Signature	**Typed Name and Title** Jeff Field~~DeAndre Singletary~~ Missouri-Kansas Branch Chief Superfund Division	**Date**
Recommending Signature	**Typed Name and Title** Robert W. Jackson Deputy Director Superfund Division	**Date**

Approval Signature	**Typed Name and Title** Cecilia Tapia Director Superfund Division	**Date**

Attachment: Statement of Work